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The forests of the Pays de Bitche 250 years ago: a reconstruction



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Reconstructing the forests of the past constitutes an important challenge for understanding the dynamics of vegetated environments, assessing the state of current ecosystems, and anticipating their possible developments. Human-environment relations are thus appreciated from a broad perspective. **The OHM Pays de Bitche attempted an approach using different sources: palynology, anthracology, but also the use of human archives.** We present here an attempt inspired in particular by American investigations based on land surveys. By using archives that allow large numbers of trees to be identified and located, it is possible to achieve a precise reconstruction of our forests three centuries ago.

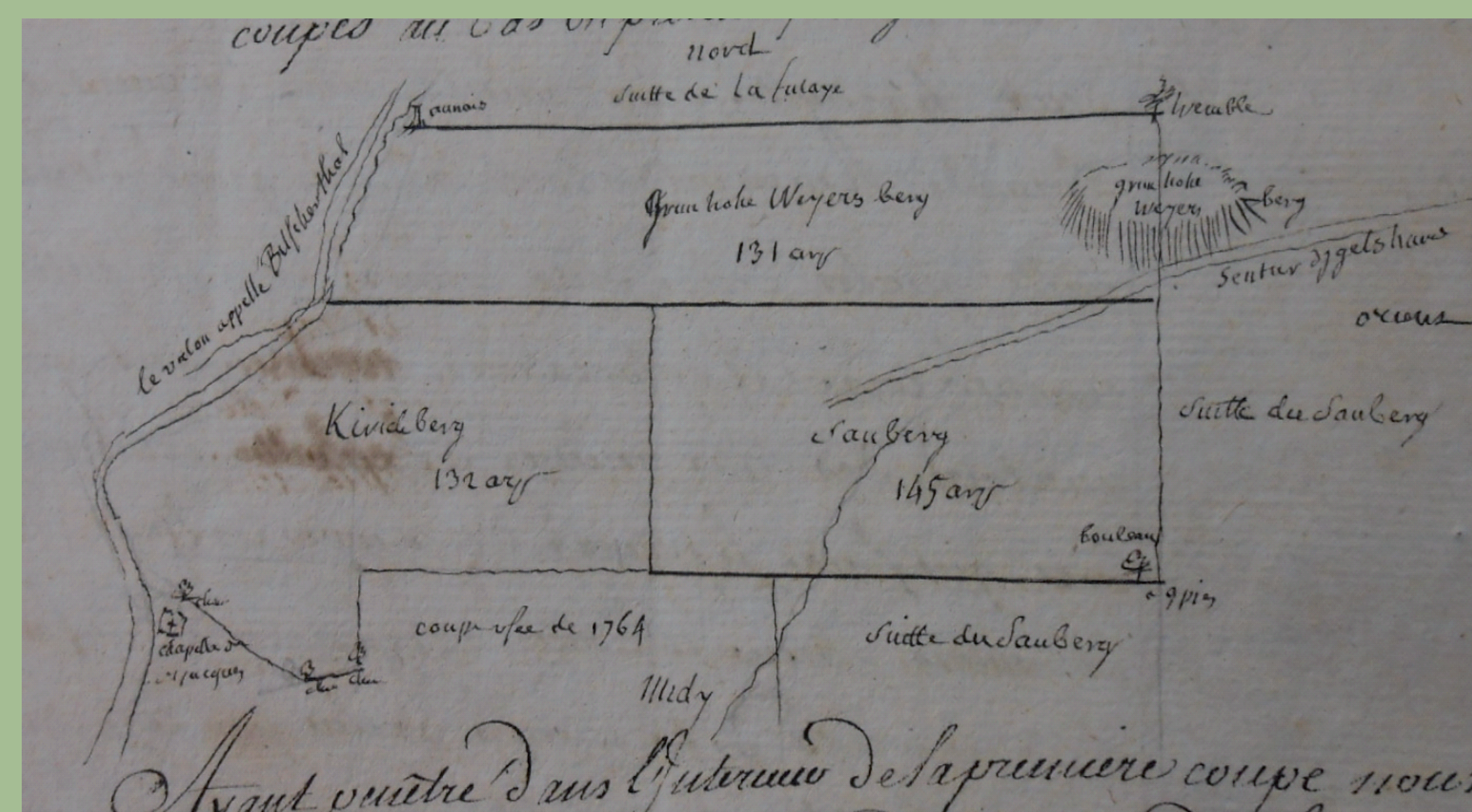
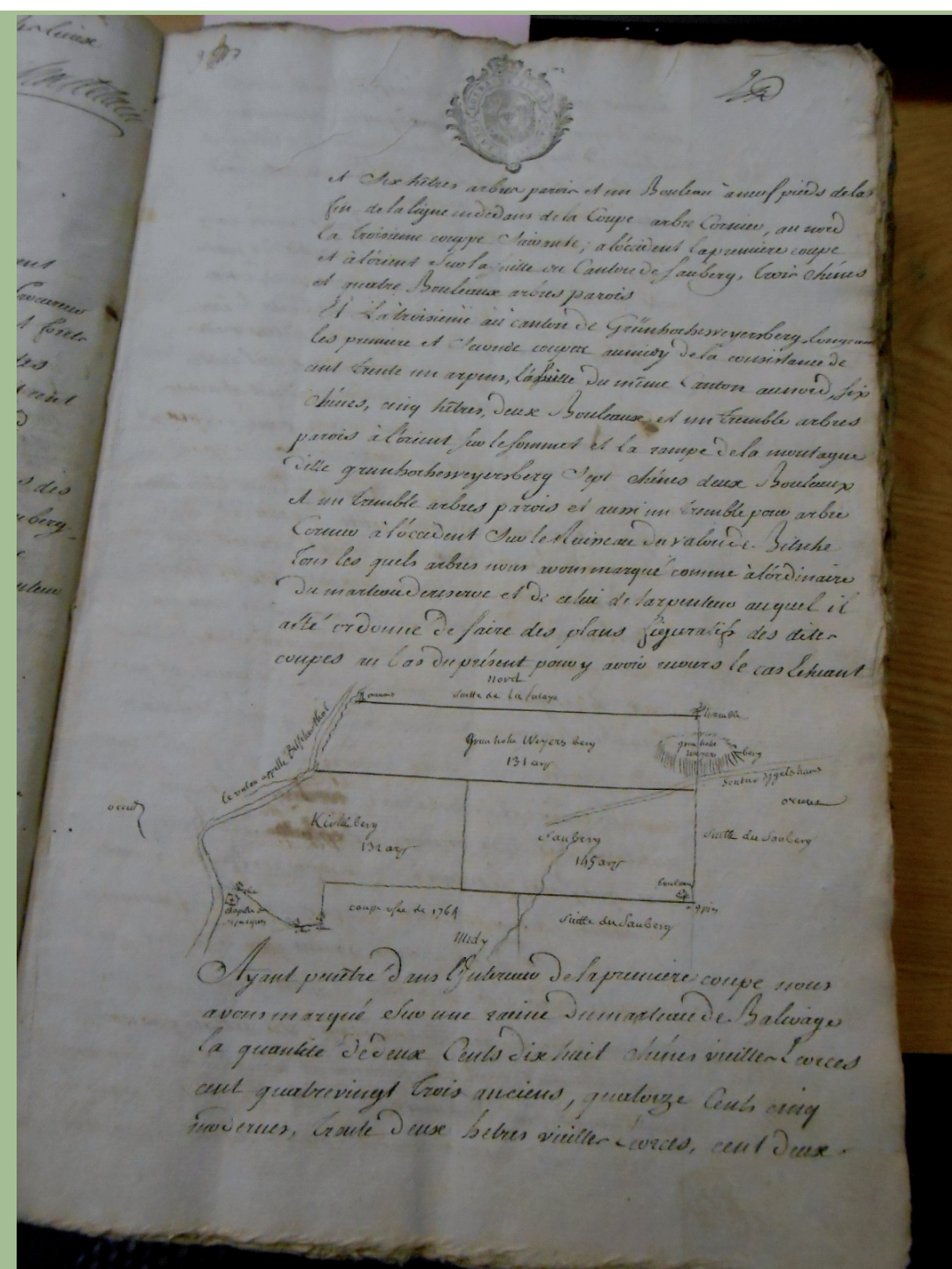
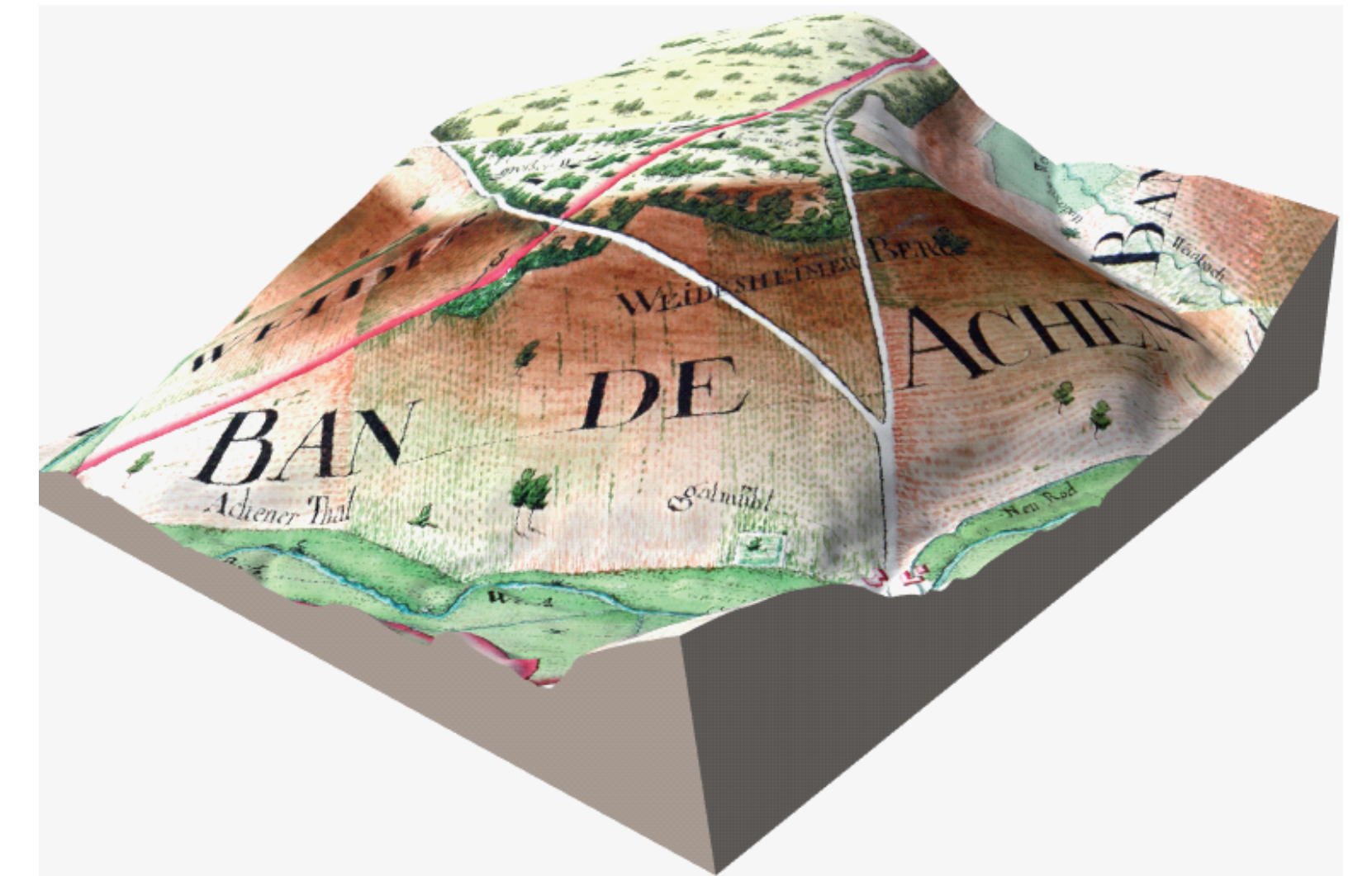
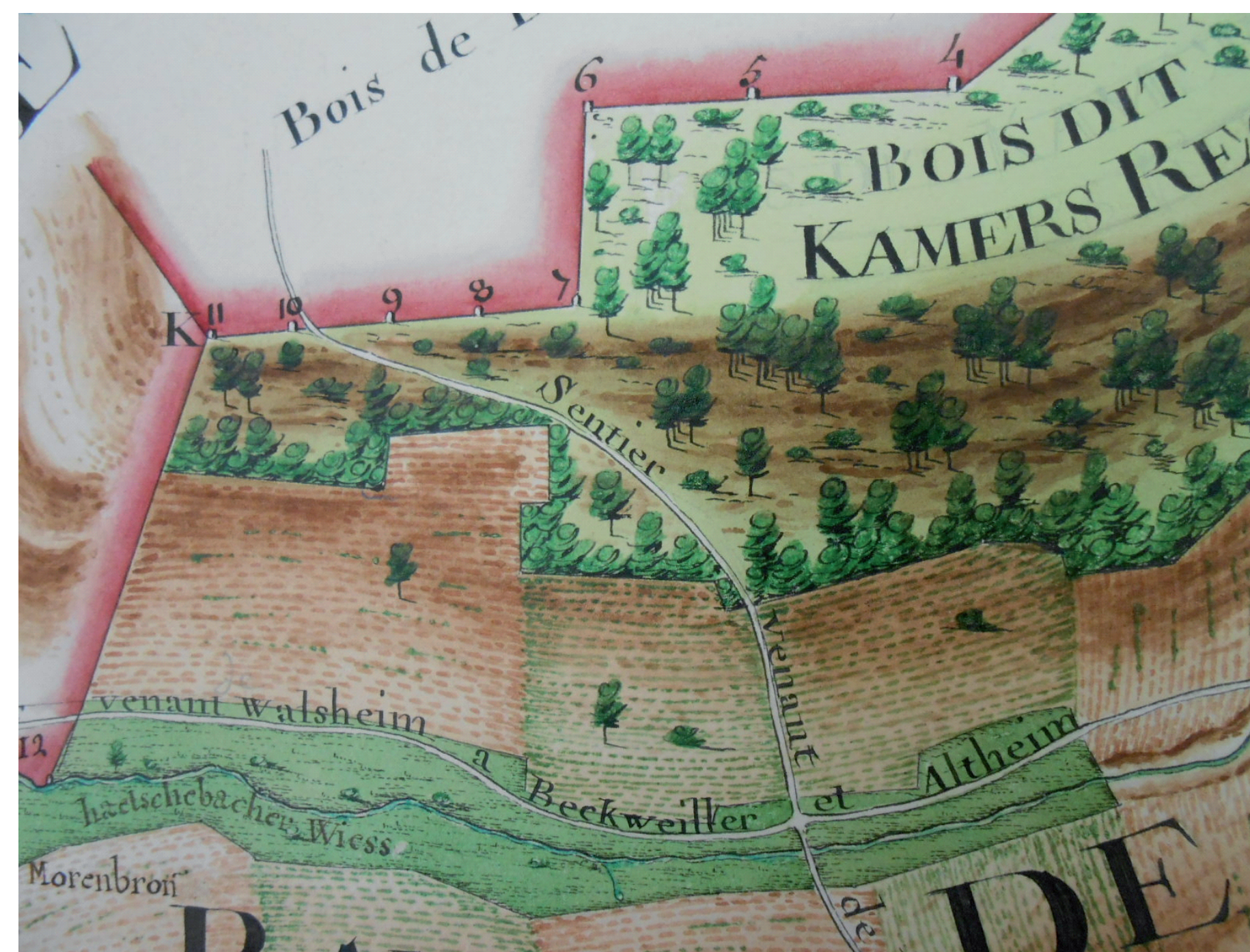


In the middle of the 18th century, the Pays de Bitche was still rich in forests, amongst regions which were beginning to experience a shortage of wood. This is why the exploitation of its high forests was then undertaken with a rational organization worthy of the Enlightenment. For this reason, we have exceptional forest archives in this territory, which allow a precise reconstruction of the composition and structure of forest stands.



MAPPING AND LOCATING FORESTS

A "topogeographic" atlas composed of 165 sheets at the scale of 1/4300, makes it possible to constitute, over a territory of 562 km², a database of great interest for understanding regional forest environments and their evolution. The entire atlas has been georeferenced and digitized. Each polygon was associated with information provided by the written records available for this territory.



COUNTING AND SORTING TREES

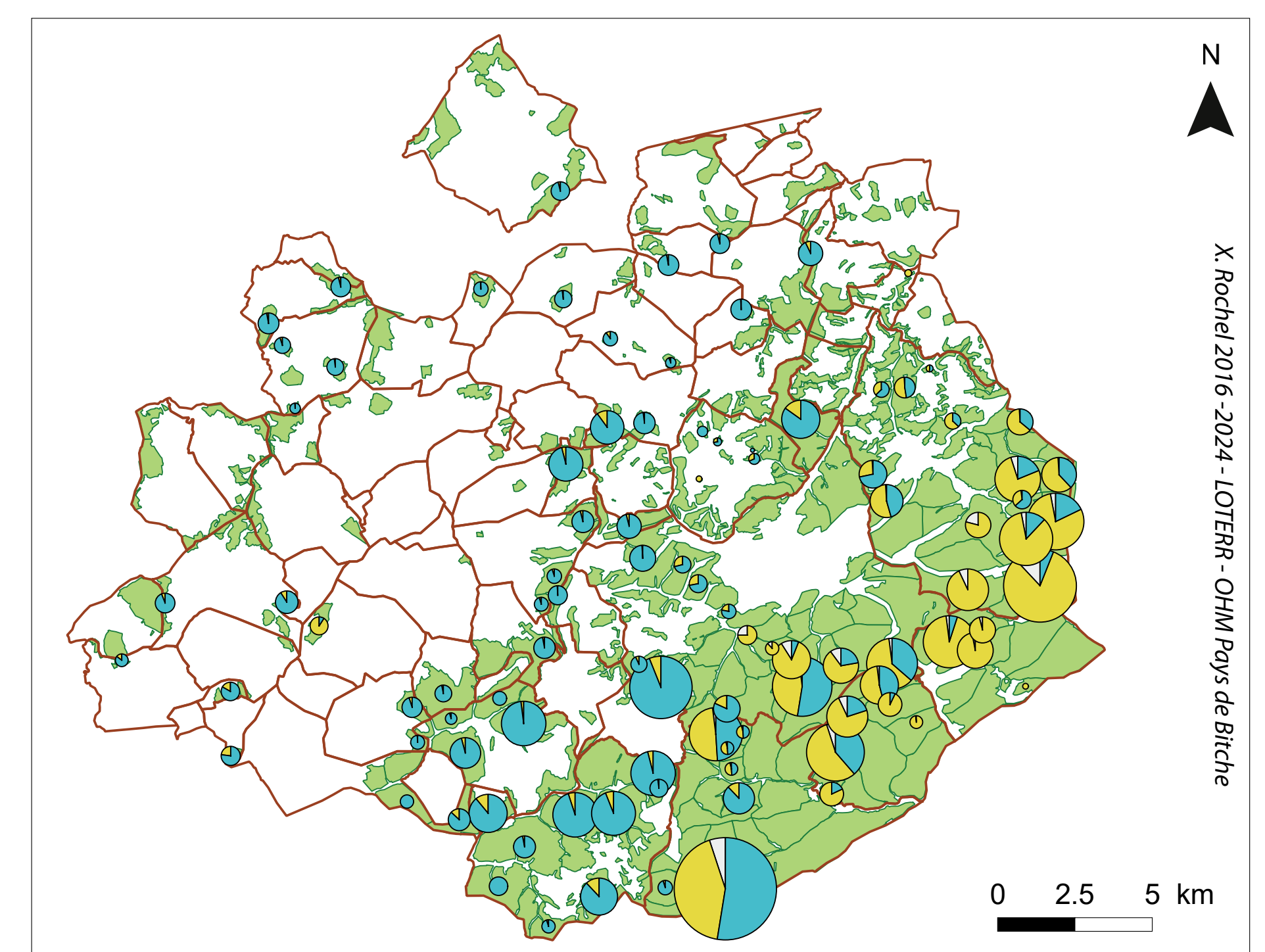
The registers make it possible to know, for each coppice-with-standards exploitation, the details of the trees constituting the reserve (standards) with their number, their species, and their diameter class. Each forest cutting can be located, using a dimensioned diagram. In total, 415 logging operations, totaling 5,800 hectares and 334,881 trees, were documented.

RECONSTRUCTING FOREST LANDSCAPES AND DYNAMICS

The main results of the study concern the composition of forests, on the one hand, and anthropogenic influence, on the other hand.

Concerning the composition of the forests, the woodlands of the 18th century were composed of beech and oak groves distributed according to an east-west organization which is still partly found today. But around 1750, very few conifers were present in the Pays de Bitche. The pines that are predominant today were once confined to the most rocky and xeric places.

Concerning human influence, **the study made it possible to deconstruct the myth of overexploitation by industries.** The fuelwood cuttings intended for forges or glassworks were not more intensive than in forests exploited for the benefit of rural communities or for regional trade.



Main publications for this project

OLIVEIRA Claudia. BOUQUEREL Jonathan. ROCHEL Xavier. MOAYED Nasrim Karimi. VANDENBERGHE Dimitri. DE GRAVE Johan. DEVIN Simon. ROBIN Vincent. 2022. Historical woodland resource use and management in temperate lowlands inferred from charcoal and written sources proxies. *Land*, 11(4) (hal-03636920)

ROCHEL Xavier. 2017. « Une biogéographie historique. Forêts et industries dans le comté de Bitche au XVIIIe siècle », *Histoire & Mesure*, vol. XXXII, no 2, p. 9-38.

